

REMARKS

Further to the office action mailed November 19, 2008, Applicant respectfully requests reconsideration.

Claims 1-14 have been examined. By this amendment, Applicant has amended claim 14 and added new claim 15. Applicant respectfully submits that no new matter has been added

In the Claims

Applicant has amended claims herein solely to expedite prosecution of this application. In doing so, Applicant does not dedicate the subject matter of the amended claims, as originally filed, to the public, and does not acquiesce to the Examiner's reason(s) offered in support of any rejections of the amended claims, or any claim(s) that depend therefrom. Applicant also reserves the right to seek patent protection for claims similar or identical to the amended claims, as originally filed, in one or more subsequently filed, related applications.

Applicant has amended claim 14 to correct minor typographical errors. New claim 15 is derived from claim 14.

Rejections under 35 USC § 103

Claims 1-6 and 10 -12 stand rejected under 35 USC § 103 as being unpatentable over U.S. Patent 5,844,339 to Schroeder in view of U.S. publication 20040021381 to Garvey. Applicant respectfully traverses as set forth below.

In general, claim 1 is directed to an active magnetic bearing that comprises first and second opposing electromagnets. Each of the first and second electromagnets comprises a magnetic circuit essentially constituted by a first ferromagnetic material. Further, each electromagnet includes a portion "that uses a second ferromagnetic material having magnetic permeability that is lower than that of the first material and electrical resistivity that is higher than that of the first material."

The Examiner asserts that Schroeder discloses a bearing having a second ferromagnetic material having magnetic permeability that is lower than the first material

and having electrical resistivity that is higher than that of the first material. Applicant respectfully disagrees with the Examiner's position and maintains that Schroeder does not disclose, teach or suggest magnetic circuits with first and second materials having different magnetic permeability and electrical resistivity characteristics as recited in Applicant's claim 1.

Further Applicant respectfully submits that Schroeder teaches away from magnetic circuits with differing materials.

Specifically, at column 6, lines 54-58, Schroeder discloses that:

the magnetic circuits 12 and 22 of the bearing are made of a material whose permeability varies little as a function of magnetic induction, in particular in the operating zone of the electromagnet, i.e., its saturation zone.

Thus, not only is Schroeder silent as to magnetic circuits with materials that have different magnetic permeabilities and electrical resistivities, but Schroeder also goes so far as to teach that the electrical circuits should be made of a material with permeability that varies only a little.

The Examiner submits that Schroeder "fails to teach how the interleaving components of the bearing are formed and at what magnetic permeability or electric resistivity." The Examiner, however, cites Garvey as disclosing materials of different magnetic permeabilities and resistivities to guide magnetic flux. According to the Examiner,

it would have been obvious....to modify the bearing of Schroeder at al. with sections of differing magnetic permeabilities and resistivities, in view of Garvey, to guide the magnetic flux in the desired pattern.

Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to the combination of Schroeder and Garvey. As reiterated by the Supreme Court in KSR International Co. v. Teleflex Inc., 550 U.S. ___, 82 USPQ2d 1385 (2007), (KSR), the framework for the objective analysis for determining obviousness is stated in Graham v. John Deere Co., 383 U.S. 1, 148 USPQ 459 (1966).

Obviousness is a question of law based on these underlying factual inquiries: (A) determining the scope and content of the prior art; (B) ascertaining the differences between the claimed invention and the prior art; and (C) resolving the level of ordinary skill in the pertinent art. (See MPEP § 2141) Once the Graham factual inquiries are resolved, the obviousness analysis must be made.

“The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious.” (See MPEP § 2141, citing KSR (“The Court quoting *In re Kahn*, citations omitted, that ‘rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.’ KSR, 550 U.S. at ___, 82 USPQ2d at 1396.”)

The Examiner has failed to provide an articulated explanation or reasoning as to why one of ordinary skill in the art would combine these references. Considering that Schroeder teaches away from a magnetic circuit comprising different materials, absent a reference to Applicant’s own teaching, **and in conflict with Schroeder’s explicit teaching**, one of ordinary skill in the art would have no reason to combine the teachings of Schroeder with those of Garvey.

Accordingly, Applicant respectfully submits that the combination of Schroeder and Garvey is improper and that claims 1-6 and 10-12 are patentable.

Claim 7 stands rejected under § 103 as being unpatentable over Schroeder and Garvey as applied to claim 4 and further in view of Meeks.

Applicant respectfully submits that claim 7 is allowable for at least the same reason as submitted above with regard to the improper combination of Schroeder and Garvey. The Examiner has failed to provide an explanation or reasoning as to why one of ordinary skill in the art would combine these references.

Claims 8 and 13 stand rejected under § 103 as being unpatentable over Schroeder and Garvey as applied to claims 1 and 4 and further in view of Clark.

Applicant respectfully submits that claims 8 and 13 are allowable for at least the same reasons as submitted above with regard to independent claim 1.

Claim 9 stands rejected under § 103 as being unpatentable over Schroeder and Garvey as applied to claim 1 and further in view of SKF "Hybrid Bearings for Electrical Machinery."

Applicant respectfully submits that claim 9 is allowable for at least the same reasons as submitted above with regard to independent claim 1.

Claim 14 stands rejected under § 103 as being unpatentable over Schroeder, Garvey, and Meeks as applied to claim 7 and further in view of SKF and Clark.

For at least the same reasons as submitted above with regard to independent claim 1, Applicant respectfully submits that dependent claim 14 is allowable.

The Examiner is encouraged to telephone the undersigned attorney to discuss any matter that would expedite allowance of the present application.

Respectfully submitted,

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